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UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Region 3

REPLY TO: 3430 Evaluation

OCT 1 1980

SUBJECT: Arizona Five-spined Ips - Horsethief Basin and Lane Mountain

TO: Forest Supervisor, Prescott NF

On August 27-28, 1980, pathologist Ed Wood and entomologist Iral Ragenovich, Forest Insect and Disease Management, visited the Bradshaw Ranger District. They were accompanied by Gary Whitman of the Bradshaw Ranger District and Owen Martin of the Supervisor's Office. The purpose of the trip was to observe the dwarf mistletoe control project in Horsethief Basin and to evaluate potential Ips problems associated with the project, and with the timber sale for the Lane Mountain fuelbreak. The following is a summary of the recommendations given to Gary and Owen on each area.

Horsethief Basin - There are three campgrounds in Horsethief Basin that are being treated for dwarf mistletoe by cutting, killing, or pruning infected trees. They are Hazlett Hollow, Kentuck Springs, and Turney Gulch campgrounds. The pruning and cutting are being done by a contractor. Due to the history of Arizona five-spined ips in the area, requirements in the contract for Ips prevention and control included stacking the bolts and covering them with 4-mil clear polyethylene sheeting and chipping the branches and limbs.

Treatment began in Hazlett Hollow on June 3. There were approximately 70 stacks of bolts, most of which had been covered with 2-mil instead of 4-mil sheeting. As a result, the plastic tore and the desired "greenhouse effect" was lost. Examination of some of the bolts in these piles showed that Ips brood had developed and emerged from these bolts. Since the Ips have already emerged from the bolts, nothing would be gained by re-covering the stacks with 4-mil sheeting. There was no evidence that emerging beetles had attacked standing trees in the area.

There were two spots with Ips-attacked fading and green trees in the campground. One spot contained 5 trees and the other 10-12 trees. Examination of the trees showed that initial Ips attack to trees in the spots occurred before work on the dwarf mistletoe project began in that area.

Work had just begun in the Kentuck Springs campground. Ips beetles were already initiating attacks in bolts that had been cut and stacked 1-3 days prior to examination. The contract required that

the stacks be covered within 6 days after the trees are cut. The contractor appeared to have only 2-mil sheeting available for covering the stacks.

Cutting had not yet begun in the Turney Gulch campground. Some concern was expressed that a small burned area would contribute to an Ips outbreak in the campground. Examination of the trees showed some adult galleries, but no successful brood development.

Recommendations: Recommendations for the Horsethief Basin area are:

1. Any new slash or bolts created by the work in Kentuck Springs and Turney Gulch should be covered with 4-mil clear polyethylene sheeting.

2. Removal of the cut wood from the area, possibly for firewood, would also prevent Ips populations from building up. If the public is allowed to remove the wood for firewood, they should be advised of the Ips problem.

3. The dead and infested trees in the two Ips spots in Hazlett campground should be cut and the infested trees covered with plastic or removed.

Lane Mountain Fuelbreak Area - Cutting has been done in the Lane Mountain Fuelbreak Timber Sale for the last 2 years. If no steps are taken for preventing or controlling Ips populations when doing successive years of cutting, populations can quickly build up in the slash and spread to standing trees.

Although potential Ips outbreaks are recognized in the Environmental Analysis Report for the Lane Mountain-Horsethief-Boulder Fuelbreaks (9/78), there are no specific measures outlined for preventing an Ips outbreak. The area was examined to determine whether a potential infestation existed.

There were large amounts of piled and scattered slash in the area where cutting had been done this summer. Examination of this slash showed occasional bolts with Ips adults or brood; however, there were no heavy concentrations or populations of Ips. Slash resulting from timber cutting the previous year had been burned that fall. A prescribed burn is scheduled this fall for the slash created by the timber cutting this past summer. Although the primary objective for burning the slash was to remove potential fuel from the fuelbreak area, it may have served a dual purpose by keeping Ips populations low. Burning the slash is one of the recommended alternatives for Ips control; however, if burning is to be used as a method of Ips control, it should coincide more closely with the timber harvest. Under favorable conditions Ips populations can build up to outbreak

levels and spread to standing trees in one summer; consequently, there is a risk involved by allowing the slash to accumulate throughout the spring and summer before burning in the fall.

The potential for Ips outbreaks can also be reduced by timing timber harvests for late summer and fall.

Recommendations: Recommendations for the Lane Mountain Fuelbreak and other planned logging activities are:

1. Timber harvests should be planned so cuttings occur after July. This is critical since the area has had a history of Ips beetle problems.

2. As long as logging activities are being conducted, slash should be treated by burning, slash removal, chipping, or piling and covering the slash with 4-mil clear polyethylene sheeting.

3. The Environmental Analysis prepared for any timber sale or other activity that creates slash should include specific measures for preventing potential Ips problems.

If you have any questions concerning this evaluation, please feel free to contact us.

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